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## CLAIMS

1. A protective helmet (1) of the type comprising an outer rigid cap (2) to which a shock-absorbing shell (3) made of expanded material is internally fixed, and an internal lining (5) for the comfort of the user, <sup>and</sup> ~~characterized in that it comprises~~ at least one intermediate cap (4) made of non-expanded material situated between the inside of said shock-absorbing shell (3) and said internal comfort lining (5).<sup>x</sup>
- ~~2.~~ The protective helmet according to claim ~~1~~ characterized in that said at least one intermediate cap (4) comprises hooking means (6) for fixing said internal lining (5).
- 15 ~~3.2~~ The protective helmet according to claim ~~2~~<sup>1</sup>, characterized in that said hooking means (6) are of the temporary type, for removably fixing said internal lining (5).
- ~~4.~~<sup>3</sup> The protective helmet according to claim ~~3~~<sup>2</sup>, wherein said hooking means (6) are selected from hooking slits, Velcro® strips, pressure buttons, laces and rings, hooks.
- ~~5.~~<sup>4</sup> The protective helmet according to any of the previous claims, characterized in that said at least one intermediate cap (4) is made so as to include a

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thermo-formable material.

5 6. The protective helmet according to claim ~~5~~<sup>4</sup>, characterized in that said intermediate cap (4) is made of a material selected from PET (polyethylene terephthalate), PETG (polyethylene terephthalate glycol), polystyrene or PC (polycarbonate).

6 7. The protective helmet according to any of the claims from 1 to 4, characterized in that said intermediate cap (4) is made of fabric.

10 8. The protective helmet according to any of the previous claims, characterized in that said intermediate cap (4) is made of acoustical material.

8 9. The protective helmet according to any of the claims from 1 to 5, characterized in that said at least one intermediate cap (4) is made of a high kinetic energy absorbing material.

9 10. The protective helmet according to any of the previous claims, characterized in that said intermediate cap (4) is shaped so as to have aeration channels and/or connection holes between said internal lining (5) and said shock-absorbing shell (3).

10 11. The protective helmet according to any of the previous claims, characterized in that the internal surface of said intermediate cap (4) is a support for a decoration.

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intermediate cap (4) with temporary hooking means (6) for said internal comfort lining (5), before said phase for attaching the internal lining.

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The method according to any of the claims 15 or 16, wherein said intermediate cap (4) is made of a thermo-formable material, comprising a shaping phase with channels and/or holes, and/or decorating said intermediate cap before said fixing phase of said intermediate cap to the shock-absorbing shell.

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~~18.~~

The method according to any of the claims from 15 to 17, characterized in that said fixing phase of the intermediate cap to the shock-absorbing shell comprises a co-moulding phase of said expanded material onto said intermediate cap.

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11 12. The protective helmet according to any of the previous claims, characterized in that said intermediate cap (4) protrudes outside said external cap (2), to form appendages of said protective helmet (1).

5 13. The cap according to any of the previous claims, wherein said shock-absorbing shell (3) is made of expanded polystyrene and characterized in that said shell is co-moulded onto said intermediate cap (4).

12 14. The cap according to any of the previous claims, characterized in that said intermediate cap (4) is in the form of a film.

13 15. A method for fixing an internal lining (5) for the comfort of the wearer inside a shock-absorbing shell (3) made of expanded material of a protection helmet (1), the method comprising the following phases:

a. producing an intermediate cap (4) made of a non-expanded material;

b. fixing said intermediate cap (4) to the internal surface of said shock-absorbing shell (3);

c. attaching said internal comfort lining (5) <sup>< by hooking means (6) ></sup> to the internal surface of the intermediate cap (4).

15 16. The method according to claim 15, comprising the phase of providing said internal surface of the in-